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No. 1276 P. 15/20

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~~XXXXXXXXXXXXXXXXXXXX~~ PATENT APPLICATION  
DOCKET NO.: 200311778-1REMARKS

Claims 1-11, 13-20, and 22-29 are pending, of which claims 1, 13, and 22 are in independent form.

Claims 1, 11, 13, 20, 22, and 29 have been amended by way of the present response.

Claims 12, 21, and 30 have been canceled without prejudice or limitation.

No new matter is introduced.

Favorable reconsideration of the present application as currently constituted is respectfully requested.

Regarding the Claim Objections

Claims 11, 20, and 29 stand objected to because of certain informalities. Also, claims 13 and 22 stand objected to because of certain typographical errors. Responsive to the comments provided in the pending Office Action in this regard, Applicant has appropriately amended claims 11, 13, 20, 22, and 29. It is therefore believed that these claim objections have been overcome or otherwise rendered moot by the present response.

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**Regarding the Claim Rejections - 35 U.S.C. §102(b)**

In the pending Office Action, claims 1, 2, 7, 11-13, 16, 20-22, 25, 29, and 30 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,286,128 to Pileggi et al. (the Pileggi reference). In connection with these §102(b) rejections, the Examiner has commented as follows:

Referring to claim 1, Pileggi et al. disclose a method, a system (claim 13), and a computer-readable medium (claim 22) for controlling analysis by an analysis tool of multiple instantiations of a circuit in a hierarchical circuit design, the method comprising:

providing a user-selected analysis option to the analysis tool (Pileggi et al., col. 4, ll. 57-col. 5, ll. 49);

analyzing a first instantiation of the circuit as specified by the analysis option (Pileggi et al., col. 4, ll. 57-col. 5, ii. 49); and

responsive to the first instantiation of the circuit passing the analysis, terminating analysis of the circuit (Fig. 1B; col. 12, ll. 60-col. 13, ll. 45).

Substantially similar comments were also provided in the present Office Action with respect to base claims 13 and 22 in this regard.

Applicant respectfully submits that the pending §102(b) rejections have been overcome or otherwise rendered moot by way of the present response. Embodiments of the present invention are directed to providing a solution for increasing runtime efficiency of a VLSI analysis tool with respect to analyzing multiple

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instantiations of circuits disposed in a hierarchical circuit design. Base claim 1 is directed to a method for controlling analysis of multiple instantiations of a circuit. As currently constituted, the embodiment of base claim 1 includes, *inter alia*, analyzing a first instantiation of the circuit as specified by a user-selected analysis option, the first instantiation being selected responsive to the user-selected analysis option provided via a user configuration file supplied in association with a reliability verification tool, wherein the reliability verification tool is operable to analyze electromigration effects with respect to the first instantiation of the circuit. Substantially identical features are also included in the remaining base claims 13 and 22 as currently amended.

The *Pileggi* reference generally relates to IC design tools, and in particular teaches interconnect-centric IC design. Essentially, a predictable interconnect (i.e., interconnect with predictable delay behavior) is concurrently placed along with logic circuitry to optimize the design process. Column 2, line 58 to column 3, line 15. Applied language at column 4, line 57 to column 5, line 49 of *Pileggi* generally describes formation of topological clusters of a design and an iterative process of placing "virtual buffers" between two circuit elements mapped to two different

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clusters in order to statistically estimate various delays. Applicant respectfully submits that the cited language or the Figures associated therewith do not teach or suggest the embodiments as currently claimed wherein a first instantiation of a circuit is analyzed as specified by a user-selected analysis option, the first instantiation being selected responsive to the user-selected analysis option provided via a user configuration file supplied in association with a reliability verification tool.

At least for the foregoing reasons, Applicant submits that the pending base claims 1, 13, and 22 are allowable over the applied art of record. Further, dependent claims 2, 7, and 11 (depending from base claim 1), dependent claims 16 and 20 (depending from base claim 13), and dependent claims 25 and 29 (depending from base claim 22) are believed to be in condition for allowance for the same reasons.

**Regarding the Claim Rejections - 35 U.S.C. §103(a)**

In the pending Office Action, various dependent claims stand rejected under 35 U.S.C. §103(a) as being unpatentable over a number of art combinations, each including the *Pileggi* reference as the primary reference. In particular, claims 3, 4, 14, and 23 stand rejected as being unpatentable over *Pileggi* in view of U.S.

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Patent Application Publication No. 2003/0208730 to Singhal et al.; claims 5, 6, 15, and 24 stand rejected as being unpatentable over *Pileggi* in view of U.S. Patent Application Publication No. 2004/0078767 to Burks et al.; claims 10, 19, and 28 stand rejected as being unpatentable over *Pileggi* in view of U.S. Patent Application Publication No. 2003/0115560 to Naffziger et al.; claims 9, 18, and 27 stand rejected as being unpatentable over *Pileggi* in view of U.S. Patent Application Publication No. 2002/0188918 to Cirit; and claims 8, 17, and 26 stand rejected as being unpatentable over *Pileggi* in view of U.S. Patent No. 5,535,370 to Raman et al.

Applicant respectfully submits that these pending §103 rejections have been overcome by the present response inasmuch as the base claims have now been amended to include the subject matter believed to be allowable over the primary reference, i.e., the *Pileggi* reference. Application of the secondary references is of no avail in this regard because none of the secondary references teaches, suggests or alludes to the deficiencies of the *Pileggi* reference. Accordingly, the various dependent claims currently rejected under 35 U.S.C. §103(a) are also believed to be in condition for allowance.

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SUMMARY AND CONCLUSION

In view of the fact that none of the art of the record, whether considered alone or in combination discloses, anticipates or suggests the pending claims, and in further view of the above remarks and amendments, reconsideration of the Action and allowance of the present patent application are respectfully requested and are believed to be appropriate.

Respectfully submitted,

Dated: 7/05/06



Shreen K. Danamraj  
Registration No. 41,696

Correspondence Address

HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, Colorado 80527-2400

Please direct telephone calls to:

Leslie P. Gehman  
(970) 898-3642